

What is claimed is:

1. A ceramic thermistor chip comprising:
a ceramic thermistor element with outer surfaces including two end parts
5 away from each other;
outer electrodes covering said end parts of said thermistor element; and
a high-resistance layer with a higher specific resistance than said ceramic
thermistor element entirely covering said outer surfaces of said ceramic
thermistor element except where said outer electrodes are formed.
2. The ceramic thermistor chip of claim 1 wherein said high-
resistance layer comprises an electrically insulating organic material.
3. The ceramic thermistor chip of claim 2 wherein said high-
resistance layer comprises an acrylate resin.
4. The ceramic thermistor chip of claim 1 wherein said thermistor
element has a principal component contained by 10% or more and said high-
resistance layer comprises a ceramic layer which has the same principal
component by 10% or more.
5. The ceramic thermistor chip of claim 2 wherein said ceramic
thermistor element has a specific resistance lower than $200\Omega\cdot\text{cm}$.
6. The ceramic thermistor chip of claim 1 wherein said high-
resistance layer comprises one or more oxides containing two or more metals
selected from the group consisting of Mn, Ni, Co, Fe, Cu and Al and also at least
one metal selected from the group consisting of Zn, Al, W, Zr, Sb, Y, Sm, Ti and
5 Fe.

7. The ceramic thermistor chip of claim 4 wherein said high-resistance layer comprises one or more oxides containing two or more metals selected from the group consisting of Mn, Ni, Co, Fe, Cu and Al and also at least one metal selected from the group consisting of Zn, Al, W, Zr, Sb, Y, Sm, Ti and Fe.

8. The ceramic thermistor chip of claim 5 wherein said high-resistance layer comprises one or more oxides containing two or more metals selected from the group consisting of Mn, Ni, Co, Fe, Cu and Al and also at least one metal selected from the group consisting of Zn, Al, W, Zr, Sb, Y, Sm, Ti and Fe.

9. The ceramic thermistor chip of claim 1 wherein said outer electrodes comprise electrolytically plated layers.

10. A method of producing a ceramic thermistor chip, said method comprising the steps of:
stacking a specified number of thermistor ceramic green sheets;
cutting and baking the stacked ceramic green sheets to obtain a ceramic thermistor element, said ceramic thermistor element having outer surfaces including two end parts away from each other;
forming a high-resistance layer entirely covering said outer surfaces of said ceramic thermistor element except said end parts;
thereafter subjecting said ceramic thermistor element to an electrolytic plating process to thereby form electrolytically plated layers on said end parts whereby said outer surfaces of said ceramic thermistor element are entirely covered by said high-resistance layer except where said electrolytically plated layers are formed.

11. The method of claim 10 wherein said high-resistance layer comprises an electrically insulating organic material.

12. The method of claim 11 wherein said high-resistance layer comprises an acrylate resin.

13. A method of producing a ceramic thermistor chip, said method comprising the steps of:

stacking a specified number of thermistor ceramic green sheets;

5 cutting the stacked ceramic green sheets to obtain a ceramic thermistor element, said ceramic thermistor element having outer surfaces including two end parts away from each other;

applying a ceramic material, having a higher specific resistance than said thermistor ceramic green sheets, entirely over said outer surfaces of said ceramic thermistor element except said end parts;

10 thereafter baking said ceramic thermistor element with said ceramic material applied thereon; and

thereafter subjecting said baked ceramic thermistor element to an electrolytic plating process to thereby form electrolytically plated layers on said end parts whereby said outer surfaces of said ceramic thermistor element are
15 entirely covered by said high-resistance layer except where said electrolytically plated layers are formed.

14. The method of claim 13 wherein said ceramic layer and said thermistor element both have a same principal component by 10% or more.

15. The method of claim 13 wherein said ceramic thermistor element has a specific resistance lower than $200\Omega\cdot\text{cm}$.

16. The method of claim 13 wherein said ceramic layer comprises one or more oxides containing two or more metals selected from the group consisting of Mn, Ni, Co, Fe, Cu and Al and also at least one metal selected from the group consisting of Zn, Al, W, Zr, Sb, Y, Sm, Ti and Fe.

17. The method of claim 15 wherein said ceramic layer comprises one or more oxides containing two or more metals selected from the group consisting of Mn, Ni, Co, Fe, Cu and Al and also at least one metal selected from the group consisting of Zn, Al, W, Zr, Sb, Y, Sm, Ti and Fe.

18. The method of claim 14 wherein said principal component consists of one or more oxides containing two or more metals selected from the group consisting of Mn, Ni, Co, Fe, Cu and Al and also at least one metal selected from the group consisting of Zn, Al, W, Zr, Sb, Y, Sm, Ti and Fe.